

Wisconsin Department of Agriculture, Trade & Consumer Protection

Wisconsin Pest Bulletin

PO Box 8911 • Madison, WI 53718 • Phone 1-800-462-2803 • Fax: 608-224-4656

Your weekly source for crop pest news, first alerts, and growing season conditions for Wisconsin

Weather and Pests

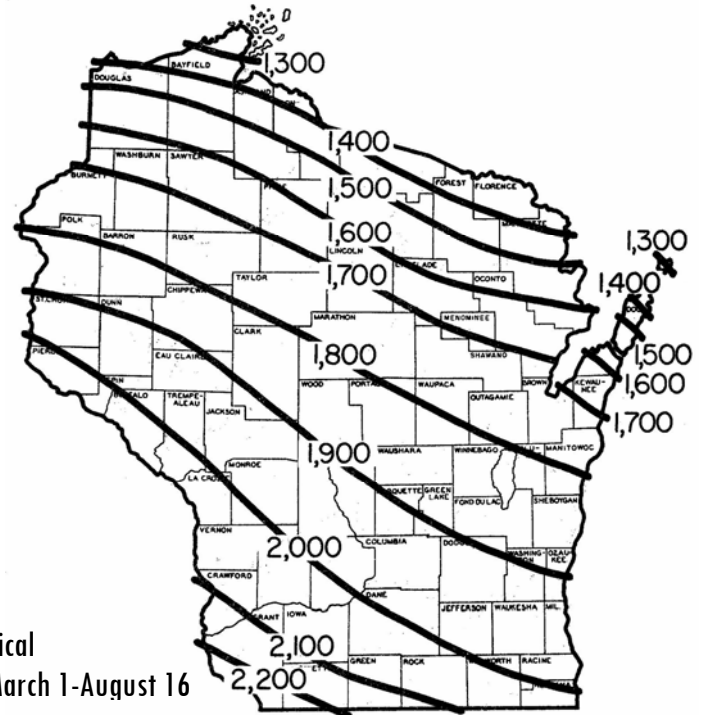
Weather throughout much of the state remained seasonable, but the first hint of autumn began to creep into the air. While rains late in the week brought back considerable green to pastures and trees that had been fading, soil moisture shortages persisted in parts of central and northern Wisconsin. Conditions in the past week were favorable for making hay and third cutting alfalfa progressed well ahead of schedule.

Pest pressure continues to roll along, with corn earworm populations holding high and apple maggot numbers climbing as fruit nears harvest time. Economic populations of two-spotted spider mites and soybean aphids are present in some soybean fields, although a natural decline in densities is expected to occur later this month.

Growing Degree Days through 8/17/06 were

	GDD 50F	5-yr Ave	Sine 48F	40F
Dubuque, IA	2134	2104	2094	3403
Lone Rock	2068	2024	2011	3314
Beloit	2233	2106	2156	3543
Madison	2022	2002	1949	3270
Sullivan	2061	2007	1984	3344
Juneau	1949	1963	1926	3204
Waukesha	1950	1933	1907	3215
Hartford	1934	1914	1894	3195
Racine	1929	1877	1898	3196
Milwaukee	1935	1853	1879	3201
Appleton	1955	1820	1874	3223
Green Bay	1837	1693	1841	3077
Big Flats	2030	1930	1885	3284
Hancock	1994	1717	1882	3241
Port Edwards	2037	1844	1901	3305
La Crosse	2301	2127	2120	3647
Eau Claire	2244	2014	2098	3578
Cumberland	1968	1738	1923	3208
Bayfield	1597	1362	1606	2732
Wausau	1813	1671	1758	3001
Medford	1832	1631	1789	3030
Crivitz	1764	1603	1743	2974
Crandon	1634	1517	1591	2752

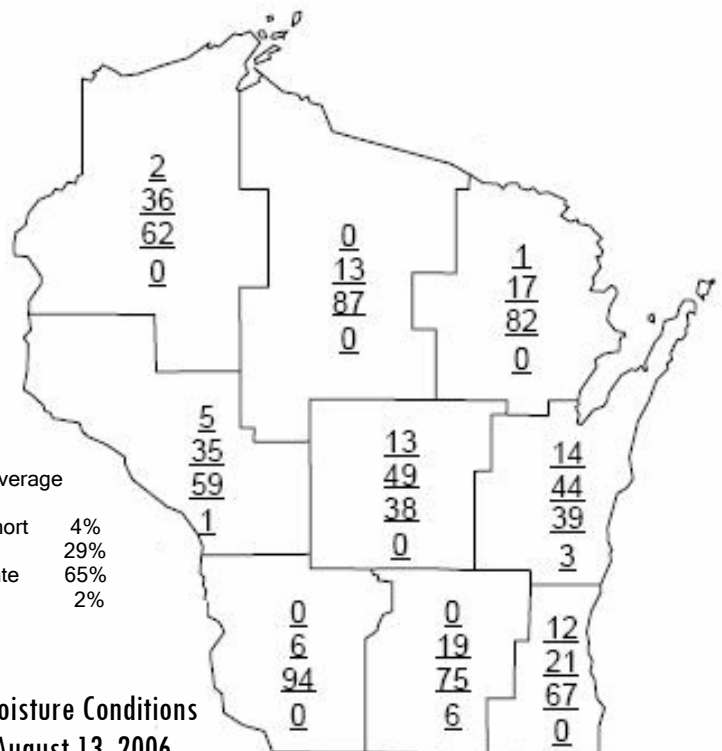
Historical
GDD March 1-August 16



State Average

Very Short 4%
Short 29%
Adequate 65%
Surplus 2%

Soil Moisture Conditions
as of August 13, 2006



Looking Ahead

Corn rootworm beetle - Northern and western corn rootworm beetles were particularly active in the past week and present in younger fields in high numbers. Counts in fields with brown silks have decreased as the selective beetles move to feeding sites with fresh silks. Preliminary results of the annual corn rootworm survey suggest some multi-year corn in the southwest, south central, southeast, and east central districts will be subject to heavy feeding pressure by corn rootworm larvae next season. In contrast, surveys in the central district found mostly low rootworm beetle populations. Visit the **CORN** section for preliminary survey results by county.

Corn earworm - Significant captures of corn earworm moths have been registered at nearly all of the 18 pheromone trapping sites since the major flight began in early August. Counts recorded during the August 11-18 reporting period ranged from 10-732 moths with the highest capture reported at Evansville. Larvae are increasing in tips of ears in sweet corn in south central and central fields and growers should prepare to begin or continue treatment programs in the week ahead. As long as nightly moth captures remain high, insecticides may need to be applied and reapplied every 2-5 days (or every 100 GDD) until silks turn brown. Sweet corn fields in the Central Sands with newly emerged silks are highly susceptible to infestation at this time.

European corn borer - Moth captures in black light traps declined to relatively low levels across the state this week, which suggests most of the second flight has emerged. Except for the possibility of very light third flight activity early in September, the summer flight of corn borer moths is essentially finished for the season. Growers can expect a corresponding decrease in egg laying in the week ahead. Small corn borer larvae, on the other hand, should remain very active this week and in the next few weeks. The treatment window for second generation larvae is expected to close in a matter of days in the southeast, east central and northern districts after 2100 DD (base 50°F) have accumulated.

Corn leaf aphid - Extremely high populations are present on corn tassels, in the silks and on the leaves in some Central Sands sweet corn fields. Growers may soon expect damaging infestations if heavily infested corn is not scouted and excessive aphid populations are not effectively controlled. Do not treat without first scouting fields as corn leaf aphid infestations are frequently localized and may be reduced with spot treatments. Sample 50 plants consisting of 10 adjacent plants in five separate locations within each field and consider treatment when 50% of the plants have colonies of over 50 aphids per plant.

Soybean aphid - Populations continued to build slowly in a few isolated fields, despite the overwhelming trend toward decreasing densities. Decisions to treat soybean in the week ahead should be carefully considered. Growers are advised to make certain: 1) the threshold of 250 aphids per plant has been exceeded by sampling 20-30 plants per field and covering at least 80% of the field, 2) the population is actively increasing, and 3) soybeans have not reached R6. Aphid densities are expected to begin declining naturally very soon.

Bean leaf beetle - Second generation beetles were active in Columbia and Dodge Co. soybeans, where defoliation ranged from 5-20% in the fields sampled this week. Although levels of defoliation did exceed the threshold of 30% in any field checked and sampling found no more than four adults per 10 sweeps, be alert to the possibility of pod feeding and clipping through the month of August.

Two-spotted spider mite - Mite pressure has intensified in many fields in the last two weeks. Exceptional Rock Co. fields were treated recently to control economic populations, though fields examined in south central and central districts contained primarily non-economic populations of this pest. Some northwest Wisconsin fields are also experiencing heavy mite populations. Growers statewide are urged to monitor soybeans for two-spotted spider mites in the week ahead.



Two-spotted spider mite

www.ars.usda.gov

Western bean cutworm - Considering that pheromone traps documented the peak period of flight activity during the first week of August, nearly three weeks ago, larvae throughout the southern half of the state should be approaching the mid- or late instars. Scout corn fields closely and continue to watch for larvae in the tips of corn ears in the week ahead.

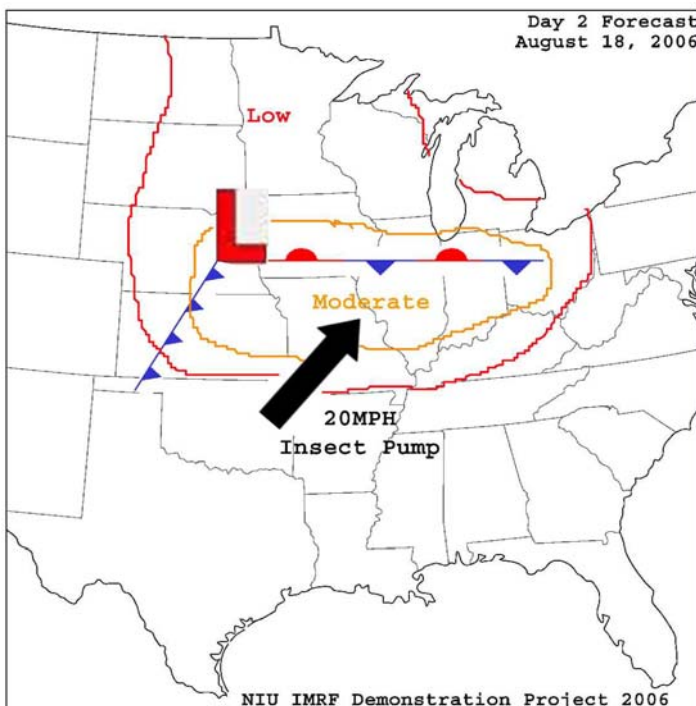
Insect Migration into Midwest Forecast

The following insect migration forecast was developed specifically for migration of corn earworm (CEW), but is applicable for all other migratory insects in the Midwest as well, such as the potato leafhopper and armyworm. Forecasts and maps are provided by Mike Sandstrom and Dave Changnon, Department of Geography, Northern Illinois University DeKalb, IL 60115

SHORT-TERM DAY 2 (FRIDAY AUGUST 18 NOON TO SATURDAY AUGUST 19 NOON):

Relative Risk of Insect migration into the Midwest: LOW to MODERATE (10-30%). Greatest risk area is between I-80 and I-70 from US 281 to I-75, including southern Nebraska, northern Kansas, northern Missouri, far southern Iowa, central Illinois, Indiana, and western Ohio.

The low pressure currently organizing over the Plains will move to the east/northeast into southern Minnesota with additional low pressure waves moving east along the frontal boundary expected to set up between the I-80 and I-90 corridors. Showers and thunderstorms will be rather widespread especially to the east of US 83 but west of Lake Michigan north of I-70 during this period, but southerly winds are expected to be rather weak. Even so, a Moderate risk is forecast for especially areas just north of the I-70 corridor but south of the I-80 corridor since insects will not have to travel very far from source regions just to the south. Much of the western Midwest, however, is at risk of insect migration due to a favorable weather pattern for at least minimal insect migration. With rather widespread and possibly heavy precipitation expected for a few days across much of the Midwest, trap counts may not increase until late in the weekend or early next week due to inactive insects staying in the canopy during rainfall.

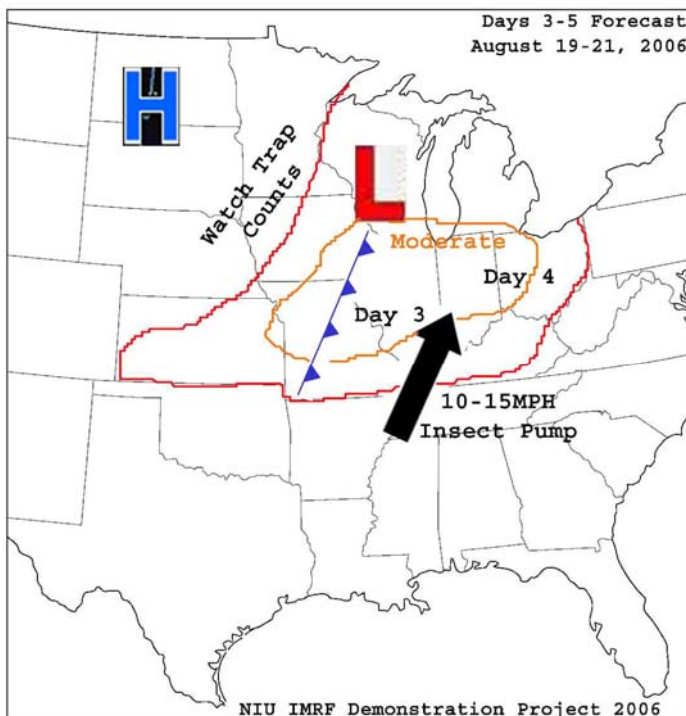


LONG-TERM DAYS 3 TO 5 (SATURDAY AUGUST 19 NOON TO MONDAY AUGUST 21 NOON):

Relative Risk of Insect migration into the Midwest: LOW to MODERATE (10-20%). Greatest risk area on Day 3 is east of I-35 north of I-80 but south of I-80 the entire Midwest south to the Ohio River Valley. On Day 4, the greatest risk is mainly east of I-65, and by Day 5 (Monday) there is little to no risk of insect migration across the Midwest.

The low pressure system is expected to continue to move to the east through the period, and by Monday (Day 5) is expected to be east of the Midwest over the eastern U.S., taking its associated precipitation with it as a weak area of high pressure builds in over the upper Midwest for at least a brief period of time. On Day 3, areas from Wisconsin and Michigan to Illinois and Missouri and west of I-75 in western Ohio and Indiana will be at greatest risk, with areas especially across the southern Midwest at slightly higher risks for new insect infestation risks. On Day 4, the risk shifts to mainly east of I-65 as the low pressure accelerates in speed, and

then little to no risk by Day 5. We will continue to monitor conditions and provide updates in tomorrow's forecast if the speed or strength of the system changes.



Corn

Corn earworm - No measurable decline in moth activity was noted in the past week as significant flights were registered at most pheromone trapping sites. Moth counts have been high since the major flight began around August 2nd. At the same time heavy corn earworm flight activity is being observed, larvae from eggs deposited earlier this month are increasing in the tips of ears in sweet corn. Sampling of 25 sweet corn ears in four Central Sands fields found 0-5 infested ears. Infestations would have been much higher had timely control treatments not been applied. Larvae in the central fields examined were newly hatched, while those detected in the southern district ranged from newly hatched to nearly mature. The older larvae present in some fields are the progeny of moths that arrived earlier in July, ahead of the major flight.

As long as pheromone trap counts continue to be high, sweet corn fields should be checked and an insecticide applied and reapplied every 2-5 days (or every 100 GDD) until silks turn brown. Pheromone trap counts for the period of August 11-18 were: Cashton 650, Chippewa Falls 204, Coon Valley 135, Evansville 732, Lancaster 625, Manitowoc 150, Marshfield 294, Mazomanie 171, Reedsburg 109, Sparta 46, Sturtevant 332, Sun Prairie 300, and Wausau 10. For corn earworm control recommendations visit:

<http://cecommerce.uwex.edu/pdfs/A3655.PDF>

Corn leaf aphid - Economic populations are present and increasing in central Wisconsin sweet corn fields. Colonies of over 250 aphids per plant were commonly encountered on 10-50% of the plants in the Adams, Portage, Waushara and Wood Co. fields surveyed with the aphids being located on the tassels, in the silks and on the undersides of all the

leaves. Growth of sooty mold on honeydew excretions was not yet apparent, but substantial increases in aphid populations and characteristic sooty mold problems can be expected to occur in these central sweet corn fields if they are not soon treated.

European corn borer - A few days remain for corn growers in the southeast, central and northern districts to assess second generation European corn borer populations and the possible need for control. The treatment window will close once 2,100 GDD (base 50F) are reached in the week ahead. The treatment window has already closed in the southwest, south central and west central districts.

Corn rootworm - The results of a statewide survey of beetle numbers are being organized and will be published in the September 1st Wisconsin Pest Bulletin. Preliminary findings show moderate to very high adult populations in the southern and east central districts, and mostly low beetle populations in the central district. The average of the number of corn rootworm beetles per plant by district for the period of August 4-17 was as follows: southwest 2.1 per plant, south central 1.7 per plant, southeast 1.4 per plant, east central 2.3 per plant, and central 0.6 per plant. A count of 1.0 or more beetles per plant indicates the potential for larval problems in multi-year corn.

<i>County</i>	<i>Ave no. CRW beetles per plant¹</i>	<i>Range</i>	<i>No fields surveyed</i>
Adams	0.1	0.1 - 0.2	3
Brown	1.8	1.0 - 2.5	2
Dodge	4.0	0.8 - 8.1	8
Door	3.9	3.9	1
Fond du Lac	0.8	0.4 - 1.5	5
Green Lake	0.9	0.3 - 1.5	3
Kewaunee	2.9	2.7 - 3.0	2
Manitowoc	3.0	1.8 - 4.0	4
Marquette	0.2	0.1 - 0.2	2
Outagamie	2.3	0.7 - 5.7	6
Portage	1.0	0.7 - 1.2	3
Sheboygan	3.9	2.9 - 5.2	3
Walworth	2.0	0.5 - 3.7	6
Waushara	0.4	0.3 - 0.5	2
Winnebago	1.4	1.4	2
Wood	1.4	0.8 - 2.0	2

¹Average based on number of corn rootworm beetles per 10 plants

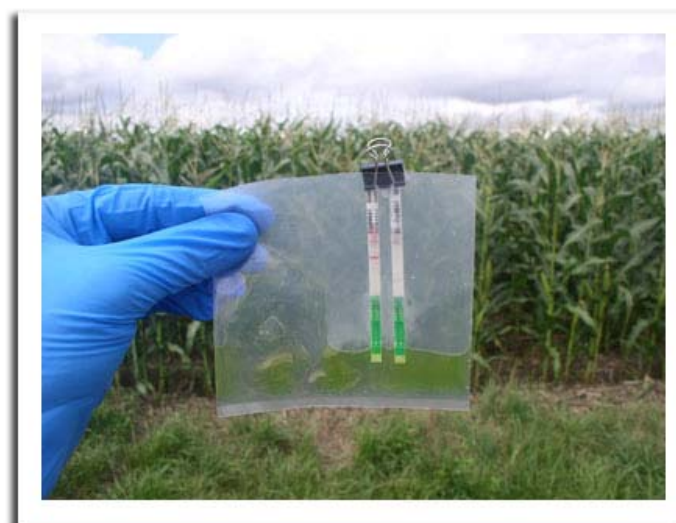
In addition to assessing corn rootworm beetle populations, DATCP survey specialists are conducting in-field tests for the two transgenic corn hybrids available for control of corn rootworm larvae: YieldGard® rootworm technology and Herculex®. This is the first year that the corn rootworm survey will be correlated with use of the transgenic traits. Results may indicate 1) how widely these rootworm technologies are used, 2) if there are regional differences in adoption of the technology, and 3) whether reduced adult activity is observed in transgenic fields. Thus far, the

YieldGard® Bt-Cry3Bb1 protein was detected in 13% of the fields surveyed, while the Herculex® Bt-Cry34Ab1 protein was detected in 1% of the fields checked. Scroll down to see images of the 'mobile laboratories' used by DATCP specialists to test for transgenic activity and for a table showing the outcome of current survey efforts by county.



Mobile transgenic corn hybrid testing station

Krista Hamilton DATCP



Step 3: Dip test strips into corn leaf/buffer solution

Krista Hamilton DATCP

Western bean cutworm - Flight activity of western bean cutworm moths has, for all practical purposes, ended. Pheromone traps captured very few moths for three successive weeks, and trap counts show the peak flight was registered in early August. Milk carton traps can be taken down in the week ahead. Look for a summary of the 2006 western bean cutworm flight in the final issue of the season scheduled for November 3.

Forages

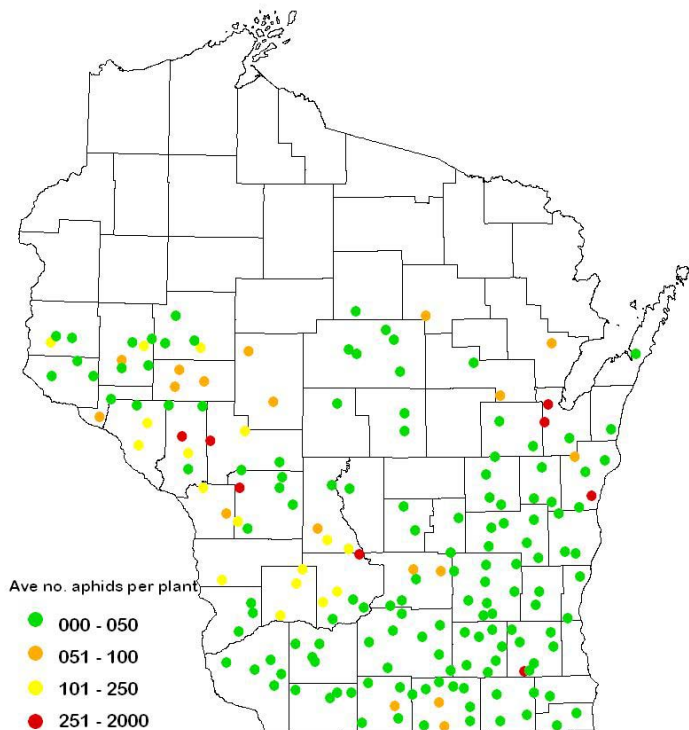
Forage pests - Populations of pest insects have collapsed in alfalfa. South central Wisconsin fields that had 4.4 and 16.3 leafhoppers per sweep two weeks ago had only 2.1 and 3.8 per sweep respectively this week. The lower populations are due to an abrupt decrease in reproduction, since very few

small nymphs were noted in any field surveyed. Potato leafhopper numbers seldom exceeded 3.5 per sweep in the southern and central districts. Additionally, pea aphids, plant bugs, and grasshoppers seldom exceeded 3.0 per sweep individually. Spotted alfalfa aphids were noted in central alfalfa this week, but in very low numbers (< 6.0 per sweep). Cooler evening temperatures were likely to have helped decelerate reproduction by most alfalfa pest species.

Soybeans

Soybean aphid - The annual survey of 183 soybean fields at the R2-R4 development stages carried out from July 12 to August 8 found aphid populations did not build to economic levels in most Wisconsin soybean fields. A total of 96% (175 of 183 fields) of the soybean fields examined had non-economic aphid populations, while just 4% (8 of 183) had soybean aphid populations in excess of the action threshold of 250 aphids per plant. Based on 2006 survey, 85% of the soybean fields averaged fewer than 100 aphids per plant, 10% of the fields examined averaged 100-250 aphids, and 4% averaged 251-2,000 aphids per plant. A total of 58% of the fields surveyed were at the R2 development stage (full bloom), 20% were at R3 (beginning pod), and 22% were at R4 (full pod).

Soybean Aphid Survey Results July 12-August 8, 2006



Interestingly, aphid populations have continued to build in many fields since the survey was completed earlier this month. While peak populations are typically reached during the R2-R4 stages, it now appears that was not the case this season. Peak densities were reached later, at R4, R5 and R6, meaning the statewide survey may not have fully captured seasonal high soybean aphid numbers. Moreover, populations continued to actively increase in some fields in

recent days, and foliar treatments to reduce aphid numbers may still be warranted. Soybean fields with populations approaching the action threshold of 250 aphids per plant should be checked every 2-3 days for at least one more week. Treatment decisions at this point will need to be made on an individual basis and should factor in aphid densities, the development stage of the plants, and whether a return on the initial investment is likely at this late stage. Final survey results are summarized in the map below and in the table on page 9.

Two-spotted spider mite - Soybean fields from Walworth Co. in the southeast to Barron Co. in the northwest contain varying, but generally localized populations of this pest. Some fields in Rock Co. developed excessive populations necessitating the use of foliar treatments earlier in the week. In addition, a report from Consultant Greg Kerr indicated two-spotted spider mite infestations are "very spotty throughout the area and need to scout each field separately." The severity of the mite situation may increase in affected fields if conditions are dry through the month of August. For scouting recommendation and thresholds visit the *Wisconsin Crop Manager* at <http://ipcm.wisc.edu/wcm/pdfs/2005/wcm05-21.pdf>.

Corn Earworm Pheromone Trap Counts

	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug
Southwest								
Lancaster				537		88		
Reedsburg				98				
South central								
Mazomanie								171
Rochelle, IL								
Sun Prairie	50	50	50	50	50	50		
Evansville	170	250	220	200+	64	28		
Arlington								
West Arlington								
Southeast								
Sturtevant							332	
Janesville								
West central								
Sparta			25			21		
Coon Valley	22	21	5	72	7	3	5	
Cashton		350			300			
New Richmond								
Chippewa Falls						204		
Central								
Wausau			4				6	
Marshfield				153			141	
East Central								
Manitowoc			110			40		

Fruit

Apple maggot - In contrast to the general decrease in orchard pest numbers observed in the past week, adult apple maggot activity increased with captures reported at several trapping sites (see Apple Insect Trapping table below). Above-threshold counts were registered at seven sites and as usual,

the red spheres captured significantly more flies than the yellow sticky boards. Treatments for control of this orchard pest should be applied as long as trap counts remain above the action threshold of one fly per unbaited trap per week, or five flies per baited trap per week. Egg laying is likely to soon begin declining now that peak emergence has long passed. Expect fly activity to continue through 2,800 GDD (base 50F).

Codling moth - Flight activity appears to have finally subsided, although above-threshold counts of five moths per trap per week were reported at a small number of trapping sites. Trap counts for the period of August 11-18 show high trap catches at just four of the reporting sites. Any orchard that continues to register counts above five moths per trap per week is a good candidate for codling moth control.

Weeds

With autumn little more than a month away, the time to begin preventative end of season activities is quickly approaching. In terms of weed development, some species have already matured and shed their seeds; others are soon to follow, while some are still many days away from dispersing mature seeds. The seeds of several weed species found in corn and soybean fields are sure to be disseminated during harvest activities.

While relatively few pre-harvest management options exist for weed control in corn and soybeans at this point in the season (aside from hand collecting mature weed species), it is always a good idea to clean harvest equipment between fields to avoid introducing new seeds into the seedbank. Although it may seem too time consuming during the race to harvest, this simple measure can help minimize weed pressures in seasons to come. Special attention should be paid to fields heavily infested with hard-to-control weeds. Some late season management suggestions listed in Michigan State University Extension publication E-2931 include: delaying fall tillage to allow seed predators to do their job, maintain some managed fencerows for predator habitat, plant cover crops, consider crop rotation an important part of weed management (alfalfa and wheat can help with weed management), and watch populations along field boundaries to prevent introduction of new species.



Barnyard grass

University of Illinois 2003

During surveys this week, the following weeds were observed with maturing seeds: barnyard grass, velvetleaf, green foxtail, giant foxtail, and wild proso millet. Species to watch in the coming weeks include common lambsquarters, pigweed spp., eastern black nightshade, and smartweed spp. If these plants are removed prior to full maturity, pressures next season may still be reduced.



Giant foxtail seeds

www.agry.purdue.edu



Giant foxtail

www.lib.ksu.edu

Forest and Landscape

Eastern spruce gall adelgid (*Adelges abietis*) - Found on black hills spruce in Lincoln Co. This aphid relative can be easily identified by the small pineapple-shaped galls that develop at the base of young shoots. Eastern spruce gall adelgid also occurs on Norway, red, white, and black spruce.

The life cycle of Eastern spruce gall adelgid is as follows: the adelgids overwinter as immature females attached at the bases of buds. Females mature in early spring and lay eggs at bud bases. When the buds begin to break later in the spring the nymphs hatch and feed on the new needles. Affected needles swell into the characteristic gall where the nymph continues to develop. Eventually the galls turn brown,

dry and split open, allowing the mature nymph to emerge sometime between mid-August and October. Mature nymphs later molt into winged females that lay egg and die within a few days of emerging.

The best method of control for this pest is to select resistant varieties. Some cultivars of Norway and white spruces have demonstrated limited resistance. Additionally, selecting uninfested nursery stock is helpful. Trees without galls from previous seasons are more likely to be resistant. If this adelgid is already present, the galls can be clipped before turning brown and opening. However, any clipped galls must be removed from the field. If left on the ground, the adelgids can still mature and emerge to reinfest a nearby tree. Using a dormant oil spray is also an effective tactic. Be sure to use good quality oil and spray before the buds double in size.



Eastern spruce gall adelgid

www.forestryimages

Foliar nematodes (*Aphelenchoides* spp.) - Found on hosta varieties 'Aureo-Marginata', 'Great Expectation', 'Midas Touch' and 'Bridegroom' in Washington Co. Foliar nematodes are found on over 200 different plant species. Some additional hosts include fern, begonia, chrysanthemum, dahlia, phlox, verberna, carnation, ficus, impatiens, and lily.

Foliar nematodes are microscopic, nonsegmented roundworms that attack the leaves of greenhouse and landscape plants. Symptoms first appear as water-soaked lesions that develop parallel to the leaf veins. As injury increases, affected tissue becomes necrotic and dries out. Once lesions increase in size, the nematodes may cross leaf veins and start new lesions.

The foliar nematodes feed on the tissue inside leaves and leave the epidermal cells intact. As the nematode feeds it reproduces inside the leaves. If the tissue dries out, certain developmental stages of the nematode may become dormant and remain viable in dried leaf tissue for over a year. When water becomes available, the nematodes life cycle resumes.

To determine if the symptoms are the result of foliar nematodes, remove small pieces of the leaf tissue showing symptoms, place them in a clear glass dish and add sufficient water to submerge the tissues. After 24 hours, carefully examine the water with a 10x hand lens and a strong light. The nematodes will appear as actively moving, glistening white threads.

Treatment for foliar nematodes is difficult. It is best to remove and destroy all plants that show symptoms of infection. However, if the plant is of significant value then nematicides and/or hot water dips can be used to try and rid the plant of the infestation. First, segregate the infested plant. Remove and destroy all leaves showing symptoms of nematodes. For the hot water dip submerge infected stock in water at 124°F for 10 minutes. However, this measure is questionable, as the nematodes can survive and reproduce on fungi in the soil.



Foliar nematodes on hosta

DATCP image

Other nursery inspection finds this week include:

Southwest region: Foliar nematodes on 'Pilgrim' hosta, and virus on "Avacado" hosta in Grant county. Elm leaf beetle on new horizon elm, rhizosphaera on Colorado blue spruce, plant bug on honey locust, septoria on magic carpet spirea, and powdery mildew on autumn brilliance serviceberry in Dane Co.

Southeast region: Leaf blister gall on red oak, powdery mildew on common lilac and serviceberry, nipple gall on hackberry, anthracnose on swamp white oak, tar spot on red maple and royal red maple, slug feeding on variegated hosta, rust on hollyhock, asteroma leafspot on green spire linden, verticillium wilt on silver maple, Japanese beetle feeding on purple leaf plum, and cedar quince rust on hawthorn in Washington Co.

East central region: Phomopsis tip blight on techny arborvitae, shothole disease on Prunus, septoria on dogwood, spruce needledrop on spruce, apple scab on snowdrift crab, magnolia scale on magnolia, needle miner on Colorado blue spruce and tar spot on Deborah maple in Outagamie Co.

Northwest region: White pine blister rust and pine pitch midge on white pine, eastern spruce gall adelgid on black hills spruce, spider mites on fraser fir, Zimmerman pine moth, pine gall rust and root collar weevil on scotch pine, and balsam twig aphid on balsam fir in St. Croix Co.

Northeast region: Potato leafhopper on red maple, septoria leafspot on gray dogwood, fall webworm on birch, cedar hawthorn rust on hawthorn, and spruce needledrop and white pine tip weevil on Colorado blue spruce in Lincoln Co.

Weekly Apple Insect Trap Counts (August 11 - August 18, 2006)

County	Site	Date	STLM ¹	RBLR ²	CM ³	OBLR ⁴	AM red ⁵	AM yellow ⁶
Bayfield	Atkins							
Bayfield	Erickson	8/11-8/17	801	0	2	0	0	0
Bayfield	Olsen 1	8/11-8/17	1296	0	3	3	0	0
Bayfield	Olsen 2	8/11-8/17	123	0	0	3	0	0
Bayfield	Lobermeier	8/11-8/17	21	0	0	8	0	0
Brown	Oneida	8/7-8/14	10	6	0	0	1	0
Crawford	Gays Mills W2	8/1-8/10	150	80	8	2	0	0
Dane	Deerfield	8/10-8/17	297	11	0	0	5	0
Dane	W Madison	8/4-8/17	130	29	12	4	1	0
Fond du Lac	Campbellsport	8/11-8/17	100	16	8	17	0	0
Fond du Lac	Campbellsport	8/11-8/17	110	24	3	7	0	0
Green	Brodhead	8/11-8/17	0	1	3	5	0	0
Iowa	Dodgeville	8/11-8/17	92	58	2	8	4	2
Marquette	Montello	8/7-8/14	17	21	0	0	0	0
Marinette	Wauzaukee	8/11-8/18	47	0	3	0	0	0
Ozaukee	Mequon	8/11-8/17	10	0.5	0.8	0.5	0.3 unbait 0.5 bait	0
Pierce	Spring Valley	8/11-8/18	141	40	2	4	0.7 unbait 5.5 bait	1
Racine	Rochester	8/11-8/17	70	21	8.3	0	1.2 unbait	0.1
Racine	Raymond	8/11-8/17	120	8	4	5	0	0
Richland	Hill Point	8/9-8/16	920	59	0	14	0	0
Sheboygan	Plymouth	8/11-8/17	665	11	4	0	5 bait	0
Waukesha	New Berlin	8/11-8/17	135	26	4	1	0	0

¹ Spotted tentiform leafminer; ² Redbanded leafroller; ³ Codling moth; ⁴ Obliquebanded leafroller; ⁵ Apple maggot red ball trap;

Exotic Pest of the Week

Apple Tortrix (*Archips fuscocupreanus*) - The apple tortrix has been observed feeding on apple, cherry, plum and pear trees in western Washington as well as in orchards in the northeastern part of the United States. The native range for apple tortrix is eastern Asia, where it is a pest to fruit trees and woody plants. It is thought to have entered North America in the early 1980s or before, though it was not identified until 1995. This pest has not yet been found in Wisconsin, but it has the potential to cause economic damage with its leafrolling habit that is similar to other pests in the leafroller family. Redbanded leafroller and obliquebanded leafroller, both members of the leafroller family, are economically important indirect pests in Wisconsin apple orchards.

Apple tortrix egg masses overwinter on the trunks or branches of trees. In Connecticut, eggs hatch around late April and the larvae begin to feed on foliage, developing fruit, and/or flowers. Larvae are thought to complete their life cycle in late May to early June, when they form pupae and emerge as adult moths 1-2 weeks later. Egg laying then occurs mid-June to mid-July.

Several orchards in the DATCP apple trapping network have been monitoring for this and other exotic fruit moths for several years. The potential for damage to Wisconsin orchards is unknown, but defoliation of developing trees is certain to reduce quality.



Weekly Black Light Trap Counts

Black light report - For the most part, lower counts of most nocturnal moth species were registered trapping sites in the past week. Dingy cutworm counts remained relatively high compared to previous seasons, although numbers during the last reporting period represent a decrease from the unusually high catches observed in the last two weeks. Wausau reported 155 moths this week compared to 267 and 224 moths reported in previous weeks, and Marshfield reported 56 moths compared to 256 and 354 moths from the weeks prior. Spotted cutworm numbers increased this week to 35 at Sparta, 18 at Marshfield, and 17 at Wausau,

European corn borer counts also declined this week, indicating the end of the second moth flight. Rochelle, Illinois reported 96 corn borer moths compared to the 136 last week. Other reports for this week compared to the last were as follows: Sparta, 14 compared to 32; Marshfield, 60 compared to 74; Manitowoc, 17 compared to 15; and Chippewa Falls, 5 compared to 23.

	Date	BCW ¹	CabL ²	CeL ³	CE ⁴	DCW ⁵	ECB ⁶	FA ⁷	TA ⁸	ForL ⁹	SCW ¹⁰	VCW ¹¹	AlfL ¹²	WBCW ¹³
Southwest														
Reedsburg	8-11 to 8-17	-	-	-	-	-	11	-	-	-	-	-	-	-
Lancaster	8-11 to 8-16	4	0	18	37	33	62	0	2	33	1	0	0	2
South central														
W. Arlington	8-11 to 8-17	3	1	7	38	23	63	0	0	0	3	6	3	0
Rochelle, IL	8-11 to 8-16	0	5	0	52	0	96	3	0	0	0	2	0	7
Southeast														
East Troy	8-11 to 8-17	1	0	1	0	0	0	4	0	0	5	0	0	19
West central														
Sparta	8-11 to 8-17	0	0	1	0	0	14	0	1	0	35	0	0	5
Chippewa Falls	8-11 to 8-17	0	0	0	1	30	5	0	0	0	0	0	0	0
Central														
Hancock														
Marshfield	8-10 to 8-17	0	0	1	18	56	60	0	11	0	18	4	0	1
Wausau	8-11 to 8-17	1	1	0	1	155	9	0	1	8	17	0	0	0
East Central														
Manitowoc	8-10 to 8-16	0	0	0	0	25	17	1	0	0	0	0	0	0

¹ Black Cutworm; ² Cabbage Looper; ³ Celery Looper; ⁴ Corn Earworm; ⁵ Dingy Cutworm; ⁶ European Corn Borer; ⁷ Fall Armyworm;

⁸ True Armyworm; ⁹ Forage Looper; ¹⁰ Spotted Cutworm; ¹¹ Variegated Cutworm; ¹² Alfalfa Looper, ¹³ Western Bean Cutworm

* Indicates trap malfunction during the week

2006 Soybean Aphid Survey Results (R2-R4)

District	Ave no. soybean aphids per plant 2006 ¹	No. Fields Surveyed 2006	Ave no. soybean aphids per plant 2005	No. Fields Surveyed 2005	Ave no. soybean aphids per plant 2004	No. Fields Surveyed 2004	Ave no. soybean aphids per plant 2003	No. Fields Surveyed 2003
Southwest	55	28	43	46	2	41	149	42
South central	30	45	75	58	12	70	1006	71
Southeast	30	17	89	37	6	35	1268	40
Central	44	12	207	23	37	24	680	23
East central	159	28	124	40	5	47	994	48
West central	100	37	198	34	9	35	633	28
Northwest	56	4	305	16	2	16	566	19
North central	22	8	113	15	7	13	93	10
Northeast	58	4	42	7	20	12	170	8
State Ave.	69	183	108	276	11	293	618	289

¹ Average based on number of soybean aphids on 20 plants examined

Web Site of the Week

WAGA

The web site of the Wisconsin Apple Growers Association offers something for everyone--a directory of Wisconsin orchards and collections of recipes for those of us who eat, and plenty for those who grow apples, including excellent information on the Apple Grower Risk Management Project.

<http://www.waga.org/>

Quote of the Week

"Natural grass is a wonderful thing for little bugs and sinker-ball pitchers."

-- Dan Quisenberry (1953-1998),
244 saves, 370 SO, 2.76 ERA



EXOTIC Pest of the Week

Apple tortrix moth, *Archips fuscocupreanus* (Linnaeus)